

IN THE CLAIMS:

Please amend the claims as follows:

1. (Original) Display driver control circuitry for controlling a display driver for an electroluminescent display, the display comprising at least one electroluminescent display element, the driver including at least one substantially constant current generator for driving the display element, the control circuitry comprising:

a drive voltage sensor for sensing a voltage on a first line in which the current is regulated by said constant current generator; and

a voltage controller coupled to said drive voltage sensor for controlling the voltage of a supply for said constant current generator in response to said sensed voltage, and configured to control said supply voltage to increase the efficiency of said display driver.

2. (Original) Display driver control circuitry as claimed in claim 1, wherein said voltage controller is configured to reduce said supply voltage when this will not substantially reduce said regulated current and/or said display brightness.

3. (Original) Display driver control circuitry as claimed in claim 2, wherein said voltage controller is configured to control said supply voltage such that said constant current generator operates in the vicinity of its compliance limit.

4. (Original) Display driver control circuitry as claimed in claim 3, further comprising means to determine a compliance limit for use by said voltage controller.

5. (Currently Amended) Display driver control circuitry according to
~~any one of claims~~ claim, 1 to 4 further comprising a supply voltage sensor for sensing
said supply voltage, and means to determine a difference between said supply voltage
and said first line voltage, and wherein said voltage controller is configured to control
said supply voltage responsive to said difference.

6. (Currently Amended) Display driver control circuitry according to
~~any one of claims~~ claim, 1 to 4 wherein said display has a plurality of
electroluminescent display elements, and wherein said display driver has a plurality of
substantially constant current generators for simultaneously driving said plurality of
display elements, each said constant current generator being configured for regulating
the current on an associated display drive line, the display driver control circuitry
further comprising a drive voltage sensor for sensing the voltage on each said display
drive line, and wherein said voltage controller configured to control said supply
voltage responsive to the sensed voltage on a said drive line having a maximum
voltage of said drive line sensed voltages.

7. (Original) Display driver control circuitry according to claim 6
further comprising a supply voltage sensor for sensing said supply voltage, and means
to determine a difference between said supply voltage and said maximum voltage, and
wherein said voltage controller is configured to control said supply voltage responsive
to said difference.

8. (Currently Amended) Display driver control circuitry according to either claim 6, or 7 wherein said display comprises a passive matrix display, and wherein said voltage controller is configured to control said supply voltage on a frame-by-frame basis.

9. (Currently Amended) Display driver control circuitry according to either claim 6, or 7 wherein said display comprises a passive matrix display having a plurality of rows of display elements, and wherein said voltage controller is configured to control said supply voltage on a row-by-row basis.

10. (Currently Amended) Display driver control circuitry according to any preceding claim 1 wherein said display has at least one control line for controlling the illumination of said at least one electroluminescent display element, wherein said drive voltage sensor is configured to sense the voltage on said display control line, and wherein said voltage controller has an output for controlling an adjustable power supply configured for providing said supply voltage.

11. (Currently Amended) A display driver including the display driver control circuitry of any one of claims claim 1 to 10.

12. (Currently Amended) Display driver control circuitry as claimed in any preceding claim 1 wherein said electroluminescent display element comprises an organic light emitting diode.

13. (Original) A method of reducing the power consumption of a display driver driving an electroluminescent display, the display comprising at least one electroluminescent display element, the driver including at least one substantially constant current generator for driving the display element and having a power supply for supplying power at a supply voltage for said current generator, the method comprising:

sensing a voltage on a first line coupled to the current generator, the current in which first line is regulated by the current generator; and

controlling said supply voltage responsive to said sensed voltage to reduce said supply voltage when a reduction may be made without substantially altering said regulated current.

14. (Currently Amended) A method as claimed in claim 13, wherein said comprising controlling ~~controls~~ said supply voltage such that said current generator operates at or near its compliance limit.

15. (Currently Amended) A method as claimed in claim 14, ~~the method~~ further comprising determining said current generator compliance limit for use in said controlling.

16. (Currently Amended) A method as claimed in claim 13, ~~14 or 15, the~~
method further comprising:

sensing a voltage on a second line, the voltage on said second line
being dependent upon said power supply voltage; and
determining a voltage difference between the voltage sensed on said
first and second lines; and
wherein said controlling is responsive to said voltage difference.

17. (Currently Amended) A method as claimed in claim 13, ~~14 or 15,~~
wherein said display comprises a plurality of simultaneously driveable
electroluminescent display elements each being driven by a said substantially constant
current generator, each said substantially constant current generator having an
associated drive line the current in which is regulated by the current generator, the
method further comprising:

sensing the voltage on each said associated drive line; and
controlling said supply voltage responsive to said sensed voltage to reduce
said supply voltage when a reduction may be made without substantially altering the
regulated current in a said associated drive line having a maximum sensed voltage.

18. (Original) A method according to claim 17 further comprising:
sensing a voltage on a further line, the voltage on said further line being
dependent upon said power supply voltage; and
determining a voltage difference between the voltage sensed on said further
line and said maximum sensed voltage; and
wherein said controlling is responsive to said voltage difference.

19. (Currently Amended) A method as claimed in ~~any one of claims~~ claim
13, ~~to~~ 18 wherein said display has at least one control line for controlling the
illumination of said at least one electroluminescent display element, wherein said
driver drives said control line, and wherein said sensing comprises sensing a voltage
on said control line.

20. (Currently Amended) A method according to ~~any one of claims~~ claim
13, ~~to~~ 19 wherein a said substantially constant current generator comprises a current
source.

21. (Currently Amended) A method according to ~~any one of claims~~ claim
13, ~~to~~ 19 wherein a said substantially constant current generator comprises a current
sink.

22. (Currently Amended) A method according to ~~any one of claims~~ claim
13, ~~to~~ 21 wherein said display comprises a passive matrix display having a plurality of
electroluminescent display elements and a plurality of row electrodes and a plurality
of column electrodes for addressing said display elements, and wherein said driver is
coupled to at least one of said plurality of row electrodes and said plurality of said
column electrodes for driving said display.

23. (Currently Amended) A method according to claim 22 ~~wherein~~
comprising performing said sensing and controlling ~~is performed~~ on a row-by-row
basis.

24. (Currently Amended) A method according to claim 22 ~~wherein~~
comprising performing said sensing and controlling is performed on a frame-by-frame
basis.

25. (Currently Amended) A method according to ~~any one of claims~~ claim
13, ~~to~~ 24 wherein a said electroluminescent display element comprises organic light
emitting diode.

26. (Currently Amended) A carrier carrying processor control code to
implement the method of ~~any one of claims~~ claim 13 ~~to~~ 25.

27. (Currently Amended) Display driver circuitry configured to implement
the method of ~~any one of claims~~ claim 13 ~~to~~ 25.